

Claims

I claim:

1. Apparatus for securing structural members of a building together comprising:
- a unitary body having a rectangular face, approximately right angled bends, and tabs;
 - said rectangular face having said approximately right angled bends on the top and side;
 - said top approximately right angled bends forming sheathing tabs;
 - said side approximately right angled bends forming rafter tabs;
 - said rafter tabs having approximately right angled bends;
 - said approximately right angled bends forming plate tabs.
2. The apparatus of claim 1 wherein said rectangular face having predetermined length as a means of accurately spacing adjacent rafters from each other according to standard construction dimensions.
3. The apparatus of claim 1 wherein said rectangular face having predetermined width wherein the lower part having a wall tab as a means of covering outside wall sheathing and underlying top plate, while the middle and upper part of said rectangular face covers the space between rafters, providing ventilation through ribs.
4. The apparatus of claim 1 wherein said wall tab having predetermined area and a plurality of nail holes as a means of attachment to vertical edge of said outside sheathing and underlying top plate thereby preventing detachment of same.
5. The apparatus of claim 1 wherein said rafter tabs having predetermined area and a plurality of nail holes as a means of attachment to vertical edge of said adjacent rafters thereby connecting adjacent rafters together at predetermined distance.
6. The apparatus of claim 1 wherein said plate tabs having predetermined area and a plurality of

nail holes as a means of attachment to horizontal edge of said top plate thereby having attachment to the vertical and horizontal faces of the top plate.

7. The apparatus of claim 1 wherein said sheathing tabs having bolt holes as a means for attachment to roof sheathing through predrilled holes, and to adjacent connectors, thereby forming a strong I-beam shape against a rafter.

8. The apparatus of claim 1 wherein said sheathing tabs, rafter tabs, plate tabs, and wall tab form a strong box shape connection between said adjacent rafters, top plate, roof sheathing, and wall sheathing thereby preventing uplift, thrusting, and lateral movement between the roof and the wall.

9. Apparatus for securing roof sheathing to structural members comprising:

- a. a generally rectangular unitary roof tie;
- b. carriage bolts and nuts.

10. The apparatus of claim 9 wherein said roof tie having predetermined area and oblong holes as a means for placing and holding said carriage bolts when inserted from above a roof.

11. The apparatus of claim 9 wherein said oblong holes having predetermined width between them as a means for spanning across roof sheathing and top part of rafter.

12. The apparatus of claim 9 wherein said carriage bolts having predetermined length and width as a means for penetrating said oblong holes, predrilled holes in roof, and through said bolt holes of said sheathing tabs of claim 7.

13. The apparatus of claim 9 wherein said nut having threads equal to said bolt as a means for securing said bolts, roof tie, and sheathing tabs to said roof tab on opposite sides of a rafter.

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14. The apparatus of claim 9 wherein said roof tie and said plate ties, rafter ties, and sheathing ties of claim 1, form a strong I-beam shape against opposite sides of a rafter, roof sheathing, and top plate, thereby preventing uplift, thrusting, and lateral movement of a roof and wall during high winds and earth movements.

Sub B1
15. Apparatus for securing structural members of an existing building comprising:

- a. two generally flat plates having approximately right angled bends on opposite ends, forming rafter tabs having a plurality of nail holes;
- b. said flat plates having a wall tab on the bottom, having a plurality of nail holes as a means for attachment to outside wall sheathing and underlying top plate;
- c. said plates having approximately right angled bends on top forming sheathing tabs, having bolt holes as a means for attachment to roof sheathing;
- d. said plates having horizontal tracks with openings on one end, on one plate, and the other plate having runners with faces and arms.

Sub B1
16. The apparatus of claim 15 wherein said plates having approximate mirror image of each other.

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17. The apparatus of claim 15 wherein said tracks on one plate allow said head of said runner to enter at the opening and said arms having horizontal movement along said track.

Sub B1
18. The apparatus of claim 15 wherein said plates move horizontally when coupled together with said runners and said tracks as a means of placing said rafter tabs against vertical face of adjacent rafters.

19. The apparatus of claim 15 wherein said rafter tabs, wall tabs, and sheathing tabs having attachment to said rafters, outside wall sheathing, top plate, and roof sheathing forming an open box shape, thereby preventing uplift, thrusting, and lateral movement of a roof and wall of an existing building during strong winds and earth movements.